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Job No.: CTCE/BBMP/W.No.12/MEW/CEMENT/2013-14

Date: 28.03.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.
NAME OF THE WORK	:	Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 1989-2013
1	Standard Consistency	IS-4031 (Part -4)	30.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	135 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Ravi. N.C. AE W-12

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
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Job No.: CTCE/BBMP/W.No.12/MEW/SAND/2013-14 : 28.03.2014

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.

Name of Work : Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014

Date of Testing : 28.03.2014

Material : Sand

Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	65	3.25	3.25	96.8	90-100
2.36	190	9.50	12.75	87.3	75-100
1.18	290	14.50	27.25	72.8	55-90
600 Micron	516	25.80	53.05	47.0	35-59
300 Micron	536	26.80	79.85	20.2	8-30
150 Micron	290	14.50	94.35	5.7	0-10

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Job No.: CTCE/BBMP/W.No.12/MEW/AGG/2013-14 : 28.03.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.

Name of Work : Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014

Date of Testing : 28.03.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	800	3.20	3.20	96.80	95-100
20	16245	64.98	68.18	31.82	30-70
10	4250	17.00	85.18	14.82	10-35
4.75	3450	13.80	98.98	1.02	0-5

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Job No.: CTCE/BBMP/W.No.12/MEW/AGG/2013-14 : 28.03.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.

Name of Work : Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014

Date of Testing : 28.03.2014

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Tabel - 1

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	150	3.00	3.0	97.00	95-100
10	3305	66.10	69.1	30.90	25-55
4.75	1295	25.90	95.0	5.00	0-10

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Lab No.: CTCE/BBMP/W.No.12/MEW/BRICKS/2013-14

Date: 28.03.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.
NAME OF THE WORK	:	Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014
SAMPLE ID	:	BRICKS
SAMPLES SUPPLIED BY	:	CLIENT

The results of the tests conducted on the samples are as follows:

Sl. No	Description	Test method as per IS Codes	Result	Requirement as per IS 1077-1992 (Rev-5)
1	Compressive Strength Of Bricks	IS 3495-1992 (Part-1)	5.25 N/mm^2	Class designation 5.0
2	Water Absorption of Bricks	IS 3495-1992 (Part – 2)	9.65 %	Not more than 20 %
3	Efflorescence of Bricks	IS 3495-1992 (Part – 3)	Moderate	Up to 12.5 Class
4	Dimensional Analysis of Bricks (minimum Sampling is 20 Nos)	IS 1077-1992 (Rev – 5)		
(a)	Measurement of Length in mm		4665 mm	(4600 ± 80 mm)
(b)	Measurement of Width in mm		2225 mm	(2200 ± 40 mm)
(c)	Measurement of Height in mm		1430 mm	(1400 ± 40 mm)

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Job No.: CTCE/BBMP/W.No.12/MEW/SWGPipe/2013-14 28.03.2014

Test Report Of Glazed Stoneware Pipes

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	**M/s. Mahendra Engineering Works (Prop .G Venkatesh),** Bangalore.
Name of the work	Annual Maintenance of UGD in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	BBMP/DZ/AEE/SSD/PR/2013-14 Dated: 03.03.2014
Type of Sample	**Glazed Stoneware Pipe(300mm dia)SP-1 Class**
Techinical Reference	**As Per IS-651:2007 (VI revision)**
Date of Testing	28.03.2014

Sl no	Internal Diameter	Thickness of Pipe	% absorption	% of Acid Resistance	Crushing Strength kN/m
1	300mm	25mm	6.4	1.90	18.22
2	300mm	25mm	6.1	1.92	18.32
3	300mm	25mm	6.2	1.93	19.35
Requirements as per IS-651:2007(VI Revision)	-----	----	**Maximum 7%**	**Not Exceed 2.5%**	**Minimum 16kN/m**

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